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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/370,302	08/09/1999	WILLIAM L. PUSKAS	NEUL-129DV1	7923
7590	01/27/2005		EXAMINER	
Mark G. Lappin McDermott, Will & Emery 28 State Street Boston, MA 02109			BELLAMY, TAMIKO D	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/370,302

**Applicant(s)**PUSKAS, WILLIAM L. **Examiner**

Tamiko D. Bellamy

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-31 is/are rejected.
- 7) ☒ Claim(s) 32-44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-26, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibano (JP 07163954A) in view of Van Lenten et al. (3,939,401).

Re to claim 24, Shibano discloses an ultrasonic tank (e.g., ultrasonic vibrator 2 installed in tank 20), and a sensing transducer (s)(e.g., combination of electrode boards 19a, 19b). As depicted in fig. 1, Shibano also discloses a process liquid. Shibano lacks the detail of an enclosure passing ultrasonic energy from the process liquid to the sample fluid, and one or more sensing transducers within a sample fluid, and passing ultrasonic energy from the processing liquid to the sample fluid. Van Lenten et al. discloses in fig. 11, a sensing transducer (e.g., conductivity cell enclosure) including electrodes (13) in a sampling fluid within a housing (e.g., (e.g. body member 7). Van Lenten et al. specifically states (see col. 4, lines 57-63) that the conductivity cell electrode is unaffected by its exterior environment and retains a fluid in the interior even when removed from the fluid being measured providing a conductivity measurement that is isolated from interferences in the main body of fluid being measured. Therefore, to modify Shibano by employing housing a sample fluid, and a sensing transducer within the sample fluid would have been obvious to one of ordinary skill in the art at the time of the invention since Van Lenten et al. teaches a measuring probe having this design.

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characteristics. The skilled artisan would be motivated to combine the teachings of Shibano and Jacobs since Shibano states that his invention is applicable to a cleaning method for a determining the electrical conductivity of a cleaning liquid and Van Lenten et al. is directed to an apparatus for inserting a probe into a fluid to be measured to perform a conductivity measurement.

Re to claim 25, Shibano discloses an ultrasonic tank (e.g., ultrasonic vibrator 2 installed in tank 20), and a sensing transducer (s)(e.g., combination of electrode boards 19a, 19b). Shibano lacks the detail of the housing for a sample fluid made of polypopylene. Van Lenten et al. discloses in fig. 1, a housing (e.g., body member 7, made of glass, plastic or other material which is equivalent to a polypopylene. Therefore, to modify Shibano by employing housing a made of polypopylene would have been obvious to one of ordinary skill in the art at the time of the invention since van Lenten et al. teaches a measuing probe having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Shibano and Jacobs since Shibano states that his invention is applicable to a cleaning method for a determining the electrical conductivity of a cleaning liquid and Van Lenten et al. is directed to an apparatus for inserting a probe into a fluid to be measured to perform a conductivity measurement.

Re to claim 26, Shibano discloses a conductivity measuring means (e.g., combination of means 20 and electrode boards 19a, 19b).

Re to claims 29 and 30, Shibano discloses an analysis subsystem (e.g., judging means 21) measuring the variation of electrical conductivity within a prescribed time.

Re to claim 31, Shibano discloses an analysis subsystem (e.g., judging means 21) that is equivalent to a microprocessor.

3. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibano (JP 07163954A) in view of Van Lenten et al. (3,939,401) as applied to claims 24-26, and 29-31 above, and further in view of Condreva (6,295,873).

Re to claims 27 and 28, the combination of Shibano and Ven Lenten et al. discloses a sensing transducer within a sample fluid. The combination of Shibano and Lenten et al. lacks the detail of a determining the temperature of a sample fluid. Condreva discloses a temperature sensor (8) determining the temperature of a sample fluid. Therefore, to modify the combination of Shibano and Van Lenten et al. by employing a temperature sensor would have been obvious to one of ordinary skill in the art at the time of the invention since Condreva teaches an ultrasonic sensor system having theses design characteristics. The skilled artisan would be motivated to combine the teachings of the combination of Shibano and Van Lenten et al. and Condreva since Shibano states that his invention is applicable to a cleaning method for a workpiece including an ultrasonic transducer and Condreva is directed to an ultrasonic sensor system.

#### ***Allowable Subject Matter***

4. Claims 32-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

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5. Applicant's arguments, see pgs. 2-4, filed on 6/4/04, with respect to the rejection(s) of claim(s) 24-44 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Shibano (JP 07163954A) in view of Van Lenten et al. (3,939,401), and further in view of Condreva (6,295,873).

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

7. The following patents are cited to further show the state of art with respect to a cleaning system including a calibration standard liquid:

U.S. Pat. No. (4,890,481) as to Ezawa et al.

8. The following patents are cited to further show the state of art with respect to a cleaning system including a probe containing a fluid medium with in a chamber responsive ultrasonic wave energy:

U.S. Pat. No. (5,433,102) as to Pedziwiar et al.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 6:30 AM to 3:30 PM.

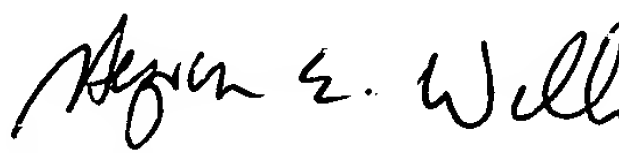
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.B.  
January 15, 2005

  
HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
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